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Ministry of Economic Development
Manatū Ōhanga
Intellectual Property Office of New Zealand

PCT/NZ2005/000033

CERTIFICATE

This certificate is issued in support of an application for Patent registration in a country outside New Zealand pursuant to the Patents Act 1953 and the Regulations thereunder.

I hereby certify that annexed is a true copy of the Provisional Specification as filed on 3 March 2004 with an application for Letters Patent number 531500 made by Michael Llewellyn Spicer and Janice Ann Spicer.

Dated 15 March 2005.

Neville Harris
Commissioner of Patents, Trade Marks and Designs

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PROVISIONAL SPECIFICATION

AN IMPROVED BED COVERING

We, Micheal Llewellyn Spicer and Janice Ann Spicer, New Zealand Citizens of 3 Virginia Heights, Wanganui, New Zealand do hereby declare this invention to be described in the following statement:-

This invention relates to a bed covering.

Bed coverings are generally used to enable a person resting in bed to remain at a constant comfortable temperature. Bed coverings are generally well known, and consist of individual items such as washable sheets of cloth material, and blanket/s and/or a duvet cover laid over the top of the sheets to provide a means of warmth retention to the resting person.

Blankets and duvets are generally of an oblong shape and sized to cover the entire bed in use. Blankets are generally manufactured from natural or synthetic materials woven to provide a fabric of uniform thickness. There are numerous types and thicknesses of blanket commercially available.

A duvet generally consists of two layers of fabric material that have their perimeter edges joined, the inside of which is filled with a material such as synthetic material, wool, down, or feather.

It is common for manufacturers to supply duvets suitable for use in differing seasons such as summer or winter. Thus duvets are categorised by the weight/density and/ or volume of their filling material. Therefore each

individual duvet is filled exclusively with a single type of material.

For decorative appearances, cleanliness, and practicality of use, the duvet is generally contained within a cover of patterned cloth material. These covers may have flaps along their edges for tucking under the mattress, thereby holding the duvet in place whilst in use.

Individual people have differing warmth requirements while resting in bed. However, in the hotter or summer months it is generally the case that the torso requires a bed covering that is able to provide greater warmth retention than that required for the lower legs and feet. Therefore, in bed, it is common for the lower legs and feet of a resting person to be uncomfortably hot whilst the remainder of their body is at a comfortable temperature.

Traditional bed coverings have a number of disadvantages. One disadvantage is that they are of a single weight/ thickness construction covering the entire bed, and therefore the resting person. In the case of a double bed where there are two persons, a bed covering may be adequate for one of the persons but not the other leading

to an imbalance of coverings required on each side of the bed, and over each of the resting persons.

A second disadvantage is that in the case of the lower legs and feet of a person resting in bed being uncomfortably hot in relation to the rest of their body, there is a tendency for the legs to be removed from under the bed coverings which gives rise to the possibility of the person becoming entangled in the bed covering, resulting in an uncomfortable rest. Where the bed covering is removed, the torso may be unintentionally exposed thereby the resting person may become uncomfortably cold, again resulting in an uncomfortable rest.

It is thus an object of the present invention to provide an improved bed covering which enables a person resting in bed to adjust the covering such that the temperature of parts of his/ her body can be maintained at a comfortable resting temperature.

Broadly according to one aspect of the invention there is provided an improved bed covering which includes a sheet, an air permeable part, and warmth retention means attached to the sheet at least part of which is

detachable to enable ventilation to occur through said part.

According to one embodiment of the invention the bed covering is such that it allows a person resting in bed to maintain a constant comfortable temperature of their upper and lower sections independently by being able to reconfigure the warmth retention means to suit their personal requirements thereby ensuring a comfortable rest.

In the following more detailed description of the invention according to preferred embodiments, reference will be made to the accompanying drawings in which:-

Figure 1 is a perspective view of the bed covering with a part thereof rolled up,

Figure 2 is a perspective view of the sheet section of the bed covering,

Figure 3 is a perspective .view of the overlapping warmth retention section of the bed covering,

Figure 4 is a side elevation of the bed covering assembled for use,

Figure 5 is a side elevation of the bed covering with the warmth retention section rolled up on the bottom of the bed, and

Figure 6 is an alternative embodiment for use on a double or larger sized bed.

As is disclosed herein, the bed covering is described in an orientation as if being fitted onto a bed. The bed covering thus has an upper-side which is outwardly visible, a top and bottom end, the top end being adjacent a persons head as resting in bed.

Figure 1 illustrates one embodiment of the bed covering for use on a single bed, or bed designed for one resting person. The bed covering is of generally an oblong shape, designed to conform to, and comfortably fit over a bed. Figure 2 and Figure 3 illustrates the two main components or sections of bed covering 10 which are coupled together in use.

It will be apparent to those skilled in the art that there are differing means by which fabric may be joined.

The method of sewing as described herein is but one method.

As shown in Figure 2, sheet 11 comprises at least three individual oblong sections sewn together to form a generally rectangular shaped sheet.

Top 12 is of fabric type material. Bottom 13 is made from an air permeable/ breathable material eg. a perforated fabric type material. Base 14 is preferably of the same material as top 12, although it can be of the same material as bottom 13.

The corresponding edges of top 12 and bottom 13 are sewn together, forming seam 15. Accordingly the corresponding edges of bottom 13 and base 14 are sewn together, forming seam 16.

As is illustrated by Figure 4, base 14 tucks around the end of, and under, mattress M, thereby holding sheet 11 in place and to prevent the bottom of sheet 11 from pulling away from mattress M.

Sheet 11 is sized dimensionally the same width as the warmth retention sections 19 and 20, although as illustrated by Figure 4, a flap of sheet F protrudes

beyond the head of warmth retention section 19. This is to enable flap F to be folded back over the top of warmth retention section 19 to provide the bed with a conventional appearance when made. This is illustrated by Figure 1.

At least two warmth retention sections 19 and 20, are provided. The warmth retention sections 19 and 20 are illustrated by Figure 3. These are of generally rectangular shape, and in the preferred form dimensionally the same width as sheet 11.

It will be apparent to those skilled in the art that there are different fastening means by which fabric objects may be temporarily connected to each other. The methods of using domes and sections of hook and loop fasteners are but two methods.

At least two rows of a plurality of spaced apart male dome fastenings 17 and 18, are attached to the upper-side of sheet 11. These are used for the purpose of attachment of sheet 11 to first and second warmth retention sections 19 and 20. A first row of fastenings 17 are located adjacent seam 15 on top 12 of sheet 11, and a second row of fastenings 18 are located adjacent seam 16 on base 13 of sheet 11.

A first warmth retention section 19 has at least one row of a plurality of spaced apart female dome fastenings 21 attached to its underside adjacent its edge E1. The positioning of the spaced apart female dome fastenings 21 must correspond to those spaced apart male dome fastenings 17 on top 12 of sheet 11, so that when female dome fastenings 17 and male dome fastenings 21 are mated together, the perimeter edges of warmth retention section 19 and sheet 11 align.

A second warmth retention section 20 has at least one row of a plurality of spaced apart female dome fastenings 22 attached to its underside adjacent its edge E2. The positioning of the spaced apart female dome fastenings 22 must correspond to those spaced apart male dome fastenings 18 on base 14 of sheet 11, so that when female dome fastenings 18 and male dome fastenings 22 are mated together, the perimeter edges of warmth retention section 20 and sheet 11 align.

Edge E3 of warmth retention section 20 overlaps edge E1 of warmth retention section 19 as shown in Figure 4. To hold edge E3 of warmth retention section 20 in position on top of warmth retention section 19, a length of hook and loop fastening is used. This comprises hook section

23 and loop section 24. Hook section 23 is located on the upper-side of warmth retention section 19, centrally located along, and adjacent to edge E1. Loop section 24 is located on the underside of warmth retention section 20, centrally located and adjacent to edge E3. Thus when warmth retention sections 19 and 20 are attached to sheet 11 and laid flat on the sheet, hook section 23 mates with loop section 24.

On the side of warmth retention section 20 directly opposing hook section 23 is a length of woven fabric type tape material. This is used to fasten around warmth retention section 20 when this is in the rolled position, to thereby hold it in the rolled position, as illustrated by Figure 1.

In use the bed covering is laid over the top of a bottom sheet on a mattress. The person resting in bed, and thereby covered by the bed covering, may change the configuration of the warmth retention section until they are at a comfortable temperature. As illustrated in Figure 5, the warmth retention section may be removed from the users feet where these are at an uncomfortably hot temperature, whilst the users torso remains covered and at a comfortable temperature.

The sheet is such that it may be uncoupled from the warmth retention section in order for it to be cleaned. This has the advantage that the user may have in store a number of sheets available, which may be of different colour, pattern, or seasonal weight.

The invention is open to modifications as will be apparent by the skilled addressee.

According to an alternative embodiment the bed covering may be adapted for use on a double or larger size bed, which is designed for more than one resting person. Figure 6 illustrates this embodiment. To achieve this embodiment, the first embodiment is effectively duplicated, laid side by side, and joined lengthwise. This enables each of the resting persons to be covered by at least two warmth retention sections.

According to a further embodiment the bed covering may be shortened in length making it suitable for children, or those persons who are less than the average height, to use.

In yet another embodiment the sheet may be manufactured from either a summer or winter weight fabric type material.

In a further embodiment, warmth retention sections of differing weights may be mixed on the same sheet.

In another embodiment, the warmth retention sections may be contained within a washable and decorative cover.

The present invention provides a bed covering which enables the user to reconfigure the warmth retention sections in order for their individual warmth requirements to be met. It enables a user to provide more or less warmth to that part of the body which is not at a comfortable temperature.

By having a sheet which has an air permeable/ breathable foot section, enables a person resting in bed to provide more warmth to that section of the body requiring it most, without unduly overheating another section of the body that has a lesser warmth requirement.

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By their attorney
DON HOPKINS & ASSOCIATES

Per:

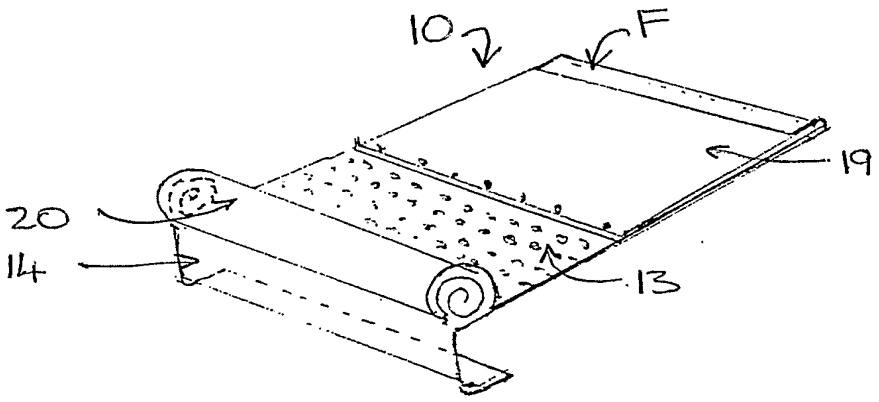

FIG. 1

Michael Spicer

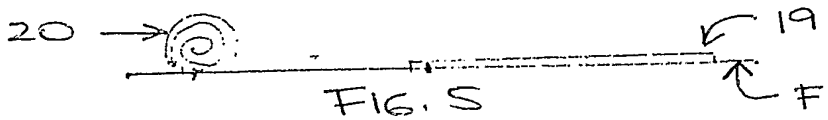

FIG. 5

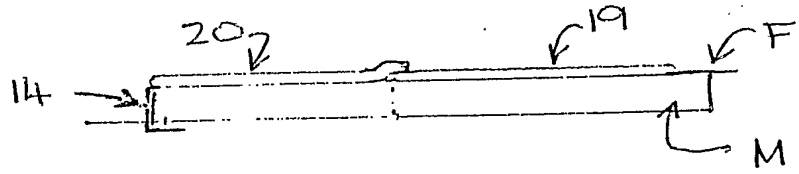

FIG. 4

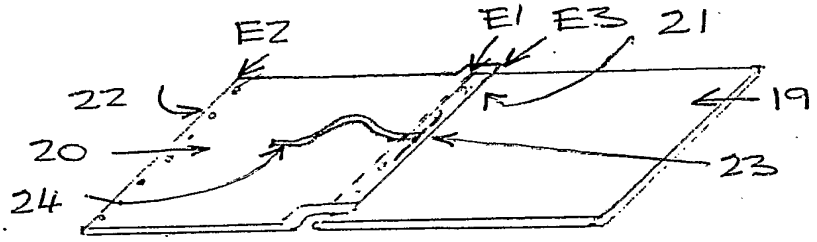

FIG3.

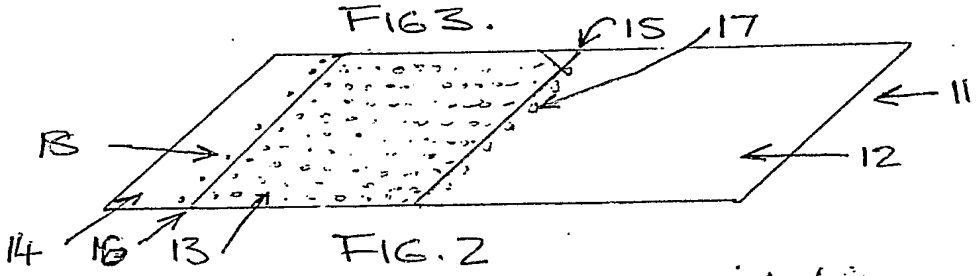

FIG. 2

Michael Queen

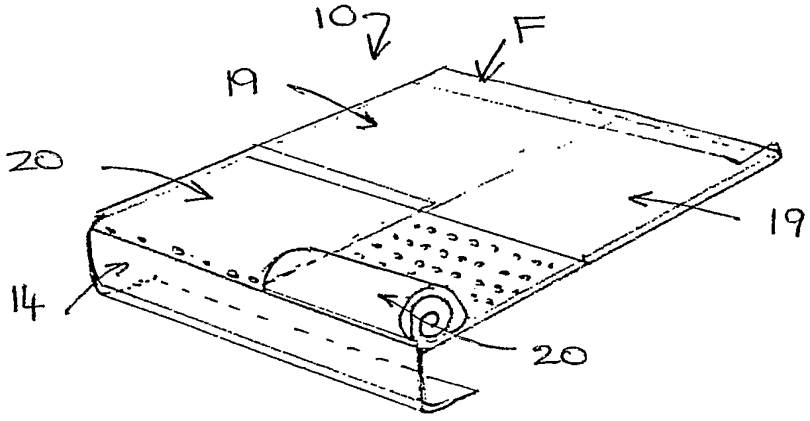

FIG. 6

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